

## ABSTRACT OF THE DISCLOSURE

A reforming reactor has a layered structure with an alternating sequence of reforming layers filled with a reforming catalyst material for an endothermic reforming reaction, and heating layers which adjoin the reforming layers via thermally conductive partition and contain a heating-space catalyst material for an exothermic reaction. The volume of the respective reforming layers is greater than that of the respective heating-space layers; and the heating-space catalyst material is introduced into the corresponding heating layer as a wall coating.